

## Forestland Interpretations

Forestland interpretations are important to good management. The management of trees begins with an understanding of the soil where they grow or are to be grown. Some soils are very suitable for growing wood crops; others barely support tree cover. Different tree species may vary in production on the same soil.

Forestland interpretations should be used to assist land users in planning, installing, and maintaining forestland management systems.

### *Forest Management and Productivity*

The Forestland Management and Productivity tables presents information about suitable for producing timber for each soil map unit. Management concerns, which include hazard of erosion, equipment use, seedling mortality, and windthrow hazard, are listed by ratings of SLIGHT, MODERATE, or SEVERE. Information on potential productivity includes plant competition, common trees, site index, productivity class, and trees to plant.

### *Management Concerns*

**EROSION HAZARD** - the risk of erosion is slight if the expected soil loss is small; moderate if some measures are needed to control erosion during logging; and severe if intensive management or special equipment and methods are needed to prevent excessive loss of soil.

**EQUIPMENT LIMITATION** - A rating of slight indicates that use of equipment is not limited to a particular kind of equipment or time of year; moderate indicates a short seasonal limitation, or a need for some modification in management of equipment; and severe indicates a seasonal limitation, a need for special equipment or management, or a hazard in the use of equipment.

**SEEDLING MORTALITY** - The ratings are for seedlings from a good planting stock that are properly planted during a period of sufficient rainfall. A rating of slight indicates that the expected mortality of the planted seedlings is less than 25 percent; moderate - 25 to 50 percent; and severe - more than 50 percent.

**WINDTHROW HAZARD** - A rating of slight indicates that trees in wooded areas are not expected to be blown down by commonly occurring winds; moderate - that some trees are blown down during periods of excessive soil wetness and strong winds; and severe that many trees are blown down during periods of excessive soil wetness and moderate or strong winds.

**PLANT COMPETITION** - A rating of slight indicates little or no competition from other plants; moderate indicates that plant competition is expected to hinder the development of the fully stocked stand of desirable trees; and severe means that plant

competition is expected to prevent the establishment of a desirable stand unless the site is intensively prepared, weeded, or otherwise managed for the control of undesirable plants.

**POTENTIAL PRODUCTIVITY** - This is discussed under the ordination class symbol.

**COMMON TREES** - Trees that generally occur on the soil are listed regardless of economic importance.

**SITE INDEX AND PRODUCTIVITY CLASS** - These are discussed under ordination class symbol.

**TREES TO PLANT** - Trees that are suitable for commercial wood production and that are adapted to the soil.

See the National Forestry Manual, Subpart B for criteria used in rating management concerns.

*This subsection includes:*

- **(a) Forest Management (one or two tables)**

Buchanan County, Missouri  
Forest Productivity

| Map symbol and<br>soil name | Potential productivity                 |               |  | Trees to manage   |
|-----------------------------|--|---------------|--|---|
|                             | Common trees                           | Site<br>index | Volume<br>of wood<br>fiber<br><br>cu ft/ac |   |
| 1B:<br>MARSHALL-----        | ---                                    | ---           | ---  | ---   |
| 1B2:<br>MARSHALL-----       | ---                                    | ---           | ---  | ---   |
| 1C:<br>MARSHALL-----        | ---                                    | ---           | ---  | ---   |
| 1C2:<br>MARSHALL-----       | ---                                    | ---           | ---  | ---   |
| 1D2:<br>MARSHALL-----       | ---                                    | ---           | ---  | ---   |
| 2D:<br>CONTRARY-----        | ---                                    | ---           | ---  | ---   |
| 3C2:<br>HIGGINSVILLE-----   | ---                                    | ---           | ---  | ---   |
| 3D2:<br>HIGGINSVILLE-----   | ---                                    | ---           | ---  | ---   |
| 4C:<br>KNOX-----            | northern red oak----<br>white oak----- | 78<br>69      | 57<br>57                                   | black walnut,<br>eastern white<br>pine, green ash,<br>tuliptree |

Buchanan County, Missouri  
Forest Productivity

| Map symbol and<br>soil name | Potential productivity                 |               |  | Trees to manage   |
|-----------------------------|--|---------------|--|---|
|                             | Common trees                           | Site<br>index | Volume<br>of wood<br>fiber<br><br>cu ft/ac |   |
| 4C2:<br>KNOX-----           | northern red oak----<br>white oak----- | 78<br>69      | 57<br>57                                   | black walnut,<br>eastern white<br>pine, green ash,<br>tuliptree |
| 4D2:<br>KNOX-----           | northern red oak----<br>white oak----- | 78<br>69      | 57<br>57                                   | black walnut,<br>eastern white<br>pine, green ash,<br>tuliptree |
| 4D3:<br>KNOX-----           | northern red oak----<br>white oak----- | 78<br>69      | 57<br>57                                   | black walnut,<br>eastern white<br>pine, green ash,<br>tuliptree |
| 4E3:<br>KNOX-----           | northern red oak----<br>white oak----- | 78<br>69      | 57<br>57                                   | black walnut,<br>eastern white<br>pine, green ash,<br>tuliptree |
| 4F:<br>KNOX-----            | northern red oak----<br>white oak----- | 78<br>69      | 57<br>57                                   | black walnut,<br>eastern white<br>pine, green ash,<br>tuliptree |
| 7B2:<br>SHARPSBURG-----     | ---                                    | ---           | ---  | ---   |

Buchanan County, Missouri  
Forest Productivity

| Map symbol and<br>soil name | Potential productivity |               |  | Trees to manage  |
|-----------------------------|------------------------|---------------|--|--|
|                             | Common trees           | Site<br>index | Volume<br>of wood<br>fiber<br><br>cu ft/ac |  |
| 7C2:<br>SHARPSBURG-----     | ---                    | ---           | ---  | ---  |
| 7D2:<br>SHARPSBURG-----     | ---                    | ---           | ---  | ---  |
| 11B:<br>SIBLEY-----         | ---                    | ---           | ---  | ---  |
| 21B:<br>JUDSON-----         | ---                    | ---           | ---  | ---  |
| COLO-----                   | ---                    | ---           | ---  | ---  |
| 22A:<br>WIOTA-----          | ---                    | ---           | ---  | ---  |
| 25F:<br>GOSPORT-----        | white oak-----         | 45            | 29   | cottonwood, eastern<br>white pine, Norway<br>spruce, red pine,<br>Scotch pine, white<br>spruce |
| 29F:<br>GASCONADE-----      | blackjack oak-----     | ---           | 0  | ---  |
|                             | chinkapin oak-----     | 41            | 29   |  |
|                             | eastern redcedar----   | 27            | 29   |  |
|                             | post oak-----          | ---           | 0  |  |

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Forest Productivity

| Map symbol and<br>soil name | Potential productivity                 |               |  | Trees to manage   |
|-----------------------------|--|---------------|--|---|
|                             | Common trees                           | Site<br>index | Volume<br>of wood<br>fiber<br><br>cu ft/ac |   |
| 31D:<br>ARMSTER-----        | pin oak-----                           | 70            | 57   | black oak, green<br>ash, northern red<br>oak, pin oak,<br>white oak |
| 33D2:<br>ARMSTRONG-----     | northern red oak----<br>white oak----- | 55<br>55      | 43<br>43                                   | eastern white pine,<br>European larch,<br>red pine, sugar<br>maple  |
| 42C2:<br>LAMONI-----        | ---                                    | ---           | ---  | ---   |
| 42D2:<br>LAMONI-----        | ---                                    | ---           | ---  | ---   |
| 44D2:<br>SHELBY-----        | ---                                    | ---           | ---  | ---   |
| 52:<br>KENNEBEC-----        | ---                                    | ---           | ---  | ---   |
| 53B:<br>JUDSON-----         | ---                                    | ---           | ---  | ---   |
| 54C:<br>OLMITZ-----         | ---                                    | ---           | ---  | ---   |
| 55:<br>COLO-----            | ---                                    | ---           | ---  | ---   |

Buchanan County, Missouri  
Forest Productivity

| Map symbol and<br>soil name | Potential productivity                    |               |  | Trees to manage  |
|-----------------------------|---|---------------|--|--|
|                             | Common trees                              | Site<br>index | Volume<br>of wood<br>fiber<br><br>cu ft/ac |  |
| 56:<br>ZOOK-----            | ---                                       | ---           | ---  | ---  |
| 57:<br>WABASH-----          | pin oak-----                              | 75            | 57   | eastern cottonwood,<br>pecan, pin oak  |
| 58:<br>WALDRON-----         | eastern cottonwood--<br>pin oak-----      | 110<br>80     | 157<br>57                                  | black willow,<br>eastern<br>cottonwood, green<br>ash, pecan, pin<br>oak, silver maple,<br>sweetgum |
| 60:<br>COLO-----            | ---                                       | ---           | ---  | ---  |
| 61:<br>NODAWAY-----         | white oak-----                            | 65            | 43   | black walnut,<br>eastern white<br>pine, European<br>larch, red pine,<br>sugar maple                |
| 64B:<br>SARPY-----          | eastern cottonwood--<br>silver maple----- | 95<br>90      | 114<br>43                                  | American sycamore,<br>black willow,<br>eastern cottonwood  |

Buchanan County, Missouri  
Forest Productivity

| Map symbol and<br>soil name | Potential productivity |               |  | Trees to manage                       |
|-----------------------------|------------------------|---------------|--|---------------------------------------|
|                             | Common trees           | Site<br>index | Volume<br>of wood<br>fiber<br><br>cu ft/ac |                                       |
| 66:<br>HAYNIE-----          | American sycamore---   | 110           | 157  | black walnut,<br>eastern cottonwood   |
|                             | black walnut-----      | ---           | 0  |                                       |
|                             | eastern cottonwood--   | 110           | 157  |                                       |
|                             | green ash-----         | ---           | 0  |                                       |
| 70:<br>MODALE-----          | ---                    | ---           | ---  | ---                                   |
| 74:<br>PERCIVAL-----        | ---                    | ---           | ---  | ---                                   |
| 77:<br>DOCKERY-----         | pin oak-----           | 76            | 57   | eastern cottonwood,<br>pecan, pin oak |
| 79:<br>ONAWA-----           | ---                    | ---           | ---  | ---                                   |
| 81:<br>ALBATON-----         | ---                    | ---           | ---  | ---                                   |
| 83:<br>LEVASY-----          | black willow-----      | ---           | 0  | eastern cottonwood,<br>pecan          |
|                             | eastern cottonwood--   | 90            | 100  |                                       |
| 93:<br>GRABLE-----          | ---                    | ---           | ---  | ---                                   |



Buchanan County, Missouri  
Forest Productivity

| Map symbol and<br>soil name | Potential productivity |               |  | Trees to manage                                |
|-----------------------------|------------------------|---------------|--|--|
|                             | Common trees           | Site<br>index | Volume<br>of wood<br>fiber<br><br>cu ft/ac |  |
| 98:<br>UDIFLUVENTS-----     | ---                    | ---           | ---  | ---  |
| WATER-----                  | ---                    | ---           | ---  | ---  |
| 99:<br>PITS-----            | ---                    | ---           | ---  | ---  |
| 101:<br>KENMOOR-----        | eastern cottonwood--   | 85            | 86   | eastern cottonwood,                            |
|                             | green ash-----         | 60            | 43   | green ash, pin                                 |
|                             | pin oak-----           | 75            | 57   | oak, sweetgum                                  |
| 102:<br>HAYNIE-----         | American sycamore---   | 110           | 157  | black walnut,                                  |
|                             | black walnut-----      | ---           | 0  | eastern cottonwood                             |
|                             | eastern cottonwood--   | 110           | 157  |  |
|                             | green ash-----         | ---           | 0  |  |
| ONAWA-----                  | ---                    | ---           | ---  | ---  |
| 104E:<br>KNOX-----          | northern red oak----   | 78            | 57   | black walnut,                                  |
|                             | white oak-----         | 69            | 57   | eastern white<br>pine, green ash,<br>tuliptree |
| URBAN LAND-----             | ---                    | ---           | ---  | ---  |

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Forest Productivity

| Map symbol and<br>soil name | Potential productivity |               |  | Trees to manage  |
|-----------------------------|------------------------|---------------|--|--|
|                             | Common trees           | Site<br>index | Volume<br>of wood<br>fiber<br><br>cu ft/ac |  |
| 104F:                       |                        |               |  |  |
| KNOX-----                   | northern red oak----   | 78            | 57   | black walnut,<br>eastern white<br>pine, green ash,<br>tuliptree                                |
|                             | white oak-----         | 69            | 57   |  |
| URBAN LAND-----             | ---                    | ---           | ---  | ---  |
| 105C:                       |                        |               |  |  |
| MARSHALL-----               | ---                    | ---           | ---  | ---  |
| URBAN LAND-----             | ---                    | ---           | ---  | ---  |
| 105E:                       |                        |               |  |  |
| MARSHALL-----               | ---                    | ---           | ---  | ---  |
| URBAN LAND-----             | ---                    | ---           | ---  | ---  |
| 106A:                       |                        |               |  |  |
| URBAN LAND-----             | ---                    | ---           | ---  | ---  |
| 229F:                       |                        |               |  |  |
| GOSPORT-----                | white oak-----         | 45            | 29   | cottonwood, eastern<br>white pine, Norway<br>spruce, red pine,<br>Scotch pine, white<br>spruce |
| GASCONADE-----              | blackjack oak-----     | ---           | 0  |  |
|                             | chinkapin oak-----     | 41            | 29   |  |
|                             | eastern redcedar----   | 27            | 29   |  |
|                             | post oak-----          | ---           | 0  |  |

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| Map symbol and<br>soil name | Potential productivity |               |  | Trees to manage |
|-----------------------------|------------------------|---------------|--|-----------------|
|                             | Common trees           | Site<br>index | Volume<br>of wood<br>fiber<br><br>cu ft/ac |                 |
| M-W:<br>WATER-----          | ---                    | ---           | ---  | ---             |
| W:<br>WATER-----            | ---                    | ---           | ---  | ---             |